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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/075,395

**Applicant(s)**

MAEDA ET AL.

**Examiner**

BARBARA N. BURGESS

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10 and 14-17 is/are rejected.
- 7) ☐ Claim(s) 5, 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to Amendment filed May 29, 2008. Claims 1-11, 14-17 are presented for further examination. Claims 12-13 have been cancelled previously as requested by Applicant.

#### ***Allowable Subject Matter***

1. Claims 5, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7-9, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh (US Patent 6,233,601 B1) in view of Oshima et al. (hereinafter "Oshima", US Patent 6,282,582 B1).

As per claim 1, Walsh discloses a mobile agent transfer system comprising:

- Server;
- Portable device (column 4, lines 5-10);

- Wherein a mobile agent and a place code are transferred between said server and said portable device (column 3, lines 20-30);
- Wherein said server has a configuration so as to transfer, said place code to said portable device when said server transfers said mobile agent to said portable device (column 4, lines 11-17, 25-28, 64-66, Figure 6);
- Wherein said portable device has a configuration so as to implement, on a side of said portable device and based on said place code transferred from said server, an environment in which said mobile agent transferred from said server is able to be executed (column 4, lines 47-67).

Walsh does not explicitly disclose:

- said place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed.

However, the use and advantages for the place code implementing such an environment is well-known to one of ordinary skill in the art as evidenced by Oshima (column 1, lines 38-65, column 2, lines 12-40, column 3, lines 20-37, column 9, lines 20-35).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Oshima's place code implementing such an environment in Walsh's system in order for the agent to execute activity.

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As per claim 2, Walsh discloses the mobile agent transfer system for portable devices according to Claim 1, wherein said place code is used to implement, on said portable device, an agent unarchiving section used to reconstruct said mobile agent based on information transmitted from said server a portable device side calculation processing section to run mobile agent reconstructed by said agent transmit said mobile agent said portable device calculation processing section said device has a program control section implement, portable device, said agent unarchiving section, said portable device side calculation processing section, said agent transmitting section based on said place code transmitted from said server (column 5, lines 55-67, column 6, lines 10-25).

As per claim 3, Walsh discloses a mobile agent transfer system for mobile communicating devices comprising:

- Server (column 4, lines 25-28, Figure 6);
- Mobile communicating device (column 4, lines 5-10);
- An information transfer device to connect said mobile communicating device to said server (column 3, lines 20-30);
- Wherein a mobile agent and place code are transferred between said server and said mobile communicating device through said information transfer device said place code used to implement, on said mobile communicating device, an agent reconstructing section, a mobile communicating device side calculation processing section and an agent transmitting section (column 3, lines 55-62, column 4, lines 50-55, 60-67);

- Wherein said server has server side calculation processing section to run said mobile agent, an agent and place code transferring section used to transfer, to said mobile communicating device, information about an internal state of said mobile agent, program code of said mobile agent, and said place code and an agent receiving section used to retrieve said mobile agent transferred from said mobile communicating device and to put said mobile agent into a state where said mobile agent is able to start operations in said server side calculation processing section (column 5, lines 55-67, column 6, lines 10-25, 35-56);
- Wherein said mobile communicating device program acquiring section used acquire information about internal state mobile agent, said program code mobile agent, and said place code transmitted from said server and program control section implement, on said mobile communicating device, said agent reconstructing section, said mobile communicating device side calculation processing section and said agent transmitting section, based on said place code acquired by said program acquiring section, wherein said agent reconstructing section has a configuration so as to reconstruct said mobile agent based on said information about internal states of said mobile agent wherein said mobile and said program code of said mobile agent, communicating device side calculation processing section has a configuration so as to run said mobile agent reconstructed by said agent reconstructing section and wherein said agent transmitting section has a configuration so as to transmit said mobile agent having completed operations in said portable side calculation processing section to said server (column 5, lines 55-67, column 6, lines 10-25).

As per claim 7, Walsh discloses a method for transferring a mobile agent for portable devices between a portable device and server, said method comprising:

- Step in which said server transfers said place code to said portable device when said server transfers said mobile agent to said portable device,(column 3, lines 45-55);

Walsh does not explicitly disclose:

- said place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed.

However, the use and advantages for the place code implementing such an environment is well-known to one of ordinary skill in the art as evidenced by Oshima (column 1, lines 38-65, column 2, lines 12-40, column 3, lines 20-37, column 9, lines 20-35).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Oshima's place code implementing such an environment in Walsh's system in order for the agent to execute activity.

As per claim 8, Walsh disclose the method for transferring the mobile agent and place code for portable devices according to Claim 7, wherein said place code is used to implement, on said portable device, an agent reconstructing section used to reconstruct said mobile agent based on information transmitted from said server, processing section

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to run said mobile agent reconstructed by said agent reconstructing section, and an agent transmitting section used to transfer said mobile agent having completed operations

processing section to said server and wherein said portable device has a program control section to implement on place code transmitted from said server, said agent reconstructing section said portable device side calculation processing section and said agent transmitting section (column 5, lines 55-67, column 6, lines 10-25).

As per claim 9, Walsh discloses a method transferring a mobile agent for portable devices for transferring said mobile agent between a portable device and a server, method comprising:

- A step in which said server transfers to said portable device information about an internal state of said mobile agent, a program code of said mobile agent, and a place code used to implement, on said portable device an agent reconstructing section, portable device side calculation processing section, agent transmitting section (column 4, lines 11-25);
- A step in which said portable device implements based on said place code transmitted from said server, said agent reconstructing section, portable device side calculation processing section, and said agent transmitting section (column 5, lines 38-50);



- Step which said agent reconstructing section reconstructs said mobile agent, based on said information about said internal states and said program code said mobile agent transmitted from said server (column 6, lines 18-35);
- Step in which said portable device side calculation processing section executes said mobile agent that has been reconstructed by said agent reconstructing section (column 6, lines 31-45);
- Step in which said agent transmitting section transmits said mobile agent having completed operations in said portable device side calculation processing section (column 5, lines 6-15).

As per claim 14, Walsh discloses a storage medium storing a program for enabling a computer to implement a method of transferring a mobile agent and place code for portable devices between a portable device and a server, said method comprising:

- Said server transferring said place code (column 4, lines 50-67);
- Said portable device implementing, on a side of said portable device and based on said place code transferred from said server, an environment in which said mobile agent transferred from said server is able to be executed (column 4, lines 47-67).

Walsh does not explicitly disclose:

- said place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed.

However, the use and advantages for the place code implementing such an environment is well-known to one of ordinary skill in the art as evidenced by Oshima

(column 1, lines 38-65, column 2, lines 12-40, column 3, lines 20-37, column 9, lines 20-35).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Oshima's place code implementing such an environment in Walsh's system in order for the agent to execute activity.

As per claim 15, Walsh discloses a storage medium storing a program for implementing a mobile agent transfer system for portable devices enable a mobile agent to be transferred between a computer for a portable device and a computer server, said method comprising:

- Processing of having said computer for said server function as a server computer side calculation processing section to run said mobile agent, as an agent transferring section to transfer, said computer for said portable device, information about internal states of said mobile agent and about a program code of said mobile agent and a place code used to implement on said computer for said portable device and based internal states program code mobile agent transmitted from computer said server, agent unarchiving section portable device side calculation agent unarchiving section, transmit said mobile agent having completed operations in said portable device side calculation processing section said computer for said server, and as an agent receiving section to unarchive said mobile agent transferred from said computer for said portable device and to put said mobile agent a state where said mobile agent is

able to start operations on said server computer side calculation processing section (column 5, lines 55-67, column 6, lines 10-25);

- Processing of having said computer for said portable device function as a program acquiring section to acquire information about internal states and program code said mobile agent transmitted from said computer and as a program control section to implement, on said computer for said portable device and based on said place code acquired by said program acquiring section, said agent unarchiving section, said portable device side calculation processing section, and said agent transmitting section (column 6, lines 35-56).

As per claim 16, Walsh discloses a mobile agent transfer system for mobile communicating devices comprising:

- Server (column 4, lines 25-28, Figure 6);
- Mobile communicating device (column 4, lines 5-10);
- Wherein a mobile agent is and place code are transferred between said server and said mobile communicating device (column 3, lines 55-62, column 4, lines 50-55, 60-67);
- Wherein said server has a configuration so as to transfer, said place code to said mobile communicating device, (column 3, lines 20-30);
- Wherein said mobile communicating device has configuration as implement, on a side of said mobile communicating device and based on said place code transferred

from said server, an environment in which said mobile agent transferred from said server is able to be executed (column 3, lines 55-67).

Walsh does not explicitly disclose:

- said place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed.

However, the use and advantages for the place code implementing such an environment is well-known to one of ordinary skill in the art as evidenced by Oshima (column 1, lines 38-65, column 2, lines 12-40, column 3, lines 20-37, column 9, lines 20-35).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Oshima's place code implementing such an environment in Walsh's system in order for the agent to execute activity.

As per claim 17, Walsh discloses the mobile agent transfer devices according to Claim 16, implement, on said mobile system for mobile communicating wherein said place code is used communicating device, an agent reconstructing section to reconstruct said mobile agent based on information transmitted from said server, a mobile communicating device side calculation processing section run said mobile agent reconstructed by said agent reconstructing section, and an agent transmitting section used to transmit said mobile agent having completed operations said portable device side calculation processing section to said server and wherein said mobile

communicating device has a program control section implement, on said mobile communicating device, said agent reconstructing section, said mobile communicating device side calculation processing section, said agent transmitting section based on said place code transmitted from said server (paragraphs [0043-0044, 0054-0055]).

4. Claims 4, 6, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh (US Patent 6,233,601 B1) in view of Oshima et al. (hereinafter "Oshima", US Patent 6,282,582 B1) and in view of Smith et al. (hereinafter "Smith", US Patent 6,532,543 B1).

As per claim 4, Walsh, in view of Oshima, discloses the mobile agent transfer system for mobile communicating devices according to Claim 3.

Walsh does not explicitly disclose wherein said server has a standby creating section used transmit, said mobile communicating device, a standby list showing mobile agents being in a standby state to be transferred to said mobile communicating device, wherein said mobile communicating device has a standby displaying section used provide said standby list said program acquiring section of said user or other device out of mobile agents indicated by said provided standby list, and wherein said program acquiring section configuration so as to make a request for acquiring said server.

However, in an analogous art, Smith discloses an agent module that establishes communication with the server. The agent module is used to download other components that may be needed (column 3, lines 47-58, column 9, lines 35-44).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Smith's standby list in Walsh's method in order to download needed components to the existing file.

As per claim 6, Walsh, in view of Oshima, discloses the mobile agent transfer system for mobile communicating devices according to claim 3.

Walsh does not explicitly disclose wherein said agent transferring section has an agent waiting section used to manage information about an identifier of a mobile agent and location of a program code of said mobile agent being in a standby state to be transferred to said mobile communicating device, a program description creating section used to make request of program archive creating section to create an archive when a request for a program description file a mobile agent is made from said program acquiring section and return said program description file containing a location said archive created by said program archive creating section to said program acquiring section and program archive creating section used to create, response to a request from said program description file creating section, archive containing program code mobile agent, information about an internal state of said mobile agent, and a place code, and to return, program acquiring section, response a request from said archive. However, in an analogous art, Smith discloses an agent module that establishes communication with the server. The agent module is used to download other components that may be needed (column 3, lines 47-58, column 9, lines 35-44).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Smith's standby list in Walsh's method in order to download needed components to the existing file.

As per claim 10, Walsh, in view of Oshima, disclose the method for transferring devices according said portable device, claim 9.

Walsh does not explicitly discloses wherein said server transmits, a standby list showing mobile agents being standby state to be transferred to said portable device and wherein said portable device provides said standby transmitted a request of said server other device mobile agents indicated provided standby list.

However, in an analogous art, Smith discloses an agent module that establishes communication with the server. The agent module is used to download other components that may be needed (column 3, lines 47-58, column 9, lines 35-44).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Smith's standby list in Walsh's method in order to download needed components to the existing file.

***Response to Arguments***

**The Office notes the following argument(s):**

- (a) Walsh does not disclose an agent and place code being transferred from a server.
- (b) Walsh neither discloses that the place code is transmitted with the agent.
- (c) Walsh fails to disclose a place code used to implement, on a side of the portable device, an environment in which the mobile agent is able to be executed.
- (d) Claims 5 and 11 are not taught by Walsh.
- (e) Walsh does not disclose the teachings of claim 2.

**In response to:**

(a)-(b) Applicant's arguments filed have been fully considered but they are not persuasive.

Walsh teaches mobiles objects (agents) are downloaded from a network source such as a web server. The mobile objects (agents) are comprised of code (place code) and data. Both of which are transmitted across the network. Prior to launching the mobile object (agent), all of the code (place code) that will be needed by the mobile object (agent) is determined. A mobile codebase (place code) is constructed and travels with the agent. Once an agent arrives at its destination and notices that a code needed is not in the codebase, a request is sent to the web server for the missing code. The web server then sends the needed code to the agent (column 1, lines 19-21, 29-31, 55-60, column 2, lines 17-25, 31-35, column 4, lines 24-26, column 6, lines 49-60).



Therefore, Walsh indeed discloses an agent and place code being transferred from a server.

(c) Applicant's argument has been considered but is moot in view of the new ground(s) of rejection.

(d) Claims 5 and 11 have been objected to as shown above (see first page of this action).

(e) Applicant's arguments filed have been fully considered but they are not persuasive.

Claim 2 states three implementations of the place code: section for reconstructing mobile agent, section to run mobile agent, and section to transmit said mobile agent. Walsh teaches serializing the agent into a format that is suitable for network transmission. This includes serializing the code and data that is traveling with the agent. Once the serialized agent arrives at the destination, it is deserialized (reconstructed) to regenerate the agent in the form in which the agent existed prior to traveling. The agent then executes a method (runs). The code that is transmitted with the agent is executed. Once execution has occurred and it's determined that the agent should migrate, the agent is passed to the next destination (transmitted). This process repeats itself at the next destination (column 3, lines 43-47, 55-60, column 4, lines 19-25, 47-55, 58-65).

Walsh, undoubtedly, discloses the limitations of claim 2.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA N. BURGESS whose telephone number is (571)272-3996. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Barbara N Burgess/  
Examiner, Art Unit 2157

Barbara N Burgess  
Examiner  
Art Unit 2157

August 15, 2008

/Ario Etienne/  
Supervisory Patent Examiner, Art Unit 2157